PART XXV.—WORKING PLANS.

1. The value of, and necessity for, working plans carefully prepared and drawn up on a scientific basis appear to be unquestionable. The importance of such plans has been fully recognized by the Government of India in respect of the forests in the provinces where the forest administration is directly under the control of that Government, and if such plans are requisite in the Central Provinces, Bengal, the Panjáb, Burma and the North-Western Provinces, they are equally needed in respect of the extensive and valuable forests in the Bombay Presidency, notably in Thána, Kánara, Sátára, the Dángs, Násik, the Panch Maháls and Belgaum. Without such a definite scheme of operations founded on careful calculations after personal inspection and examination there is a serious risk of the forest capital being unduly drawn upon, and of excessive cuttings being made in the present which after the lapse of a few years might lead to a partial collapse of forest revenues. There is also the danger, though this is less to be apprehended, that forests may be worked below their capabilities, and that income may thus be lost which might safely have been earned. (G. R. No. 4641, dated 8th June 1885.)

2. The following is an extract from a Resolution of the Government of India on the subject of the conduct and control of the work devolving on the Imperial Working Plan Branch of the Forest Department, which was communicated to the Conservators of Forests, Northern, Southern and Sind Circles, for information :—

"For some time past the area under private forests has been steadily reduced by indiscriminate fellings, and the demands on the Government forests must increase in a corresponding proportion, while at the same time the requirements of the country in the matter of forest produce are growing with the advancing prosperity of the people and the extension of Railways and other means of communication. This statement is amply borne out by the increase of forest revenue, which has risen steadily during the last five years from 68 lákhs to 106 lákhs of rupees. Judging from this rapidly rising demand on the Government forests, it may safely be predicted that the time is not far distant when, even under the most careful and detailed management, the yield of the areas at the command of Government will barely suffice for all requirements, and, unless the resources of the forests are properly husbanded, it may hereafter be found beyond the power of Government to meet the demand upon them. Moreover, it must not be overlooked that many forests are important factors in the maintenance of climatic regularity and the water-supply of the country, and that frequently, for these reasons alone, systematic management according to a well-regulated plan is essential. There is at present no sufficient guarantee that in the working of the forests due regard is paid to their maintenance and improvement.

"Forest estates are properties requiring special and peculiar treatment, and differ widely from lands which are under ordinary cultivation. In the case of forests, the produce of a particular season cannot, as a rule, be removed at once, but has generally to be kept *in situ* for many years before it becomes fit for the special purpose for which it is

needed. The Forest Officer thus becomes the trustee of considerable capital, on which he may, by over-working the forests, make disastrous inroads for a long period, without the fact coming to the knowledge of the Government, unless a careful account is kept of the growing stock and unless removals are duly regulated with reference to the capabilities of the forest and its power of reproduction. The control necessary to prevent such mismanagement can only be exercised by means of working plans, which must be prepared at first for the more important forests, but eventually for all the forests under the control of Government. On the other hand, forests may now, from fear of over-taxing them, be worked below their capabilities, and thus fail to yield the revenue that may unobjectionably be realised from them. This danger also is obviated by the preparation of proper working plans.

"Every working plan of a Government forest should be based upon the present condition of the forest, and it should deal with all points connected with its management and improvement. The details of this subject must be worked out gradually, but it may here be mentioned that the following are the most prominent matters to which the Forest Officers should direct their enquiries:—

(i) Calculation of the growing stock.

(ii) Calculation of the annual increase.

(iii) Calculation of the quantity of material to be removed, annually or periodically, with due consideration of the productive capabilities of the forest and of the demand for forest produce.

(iv) Arrangements for the re-stocking of all cleared areas by natural reproduction, sowing and planting, protection against fire and grazing, &c.

"The detail or minuteness of a working plan will depend on the demands which are made on the forest, the nature and value of the produce removed from it, and the other purposes which it is to fulfil. Where the demand equals, or exceeds the possible yield, working plans must be prepared with the greatest minuteness, and everything connected with the management must be arranged so as to obtain the highest yield which the forests are capable of returning under the most careful treatment. Where, on the other hand, the demand is as yet below the ordinary capability of the forest, a more rough and expeditious procedure may be followed. With the view of bringing all important forests under systematic management as soon as possible, the first working plans may be of a simple description and based on such data as may be readily obtainable, to be superseded by more accurate plans as the detailed information required for their preparation becomes available."

(G. I., H. D., No. 21-F., dated 6th December 1884; *vide* G. R. No. 89, dated 7th January 1885.)

3. The following Resolution of the Government of India was communicated to the Government of Bombay for information. Copies of it were forwarded by the Bombay Government for information to the Conservators, to the Commissioners, and to all Collectors for communication to the Forest Settlement Officers in their respective districts:—

"It is regarded by the Government of India as essential, in order to secure the stability of working plans, that the status of all Government forests, especially with regard to the rights of village communities or private persons, in or over any land or forest produce in such forests, should be ascertained, finally settled and recorded in the manner contemplated by the Indian Forest Act (VII of 1878). His

Excellency the Governor General in Council considers that the time has arrived when each forest reserve or protected State forest should be worked on a carefully considered plan, and since, in the Circular Resolution of this Department, No. 21-F., dated 6th December last, the record and control of working plans has been centralised and vested in the Inspector General of Forests, it is now thought necessary that Local Governments and Administrations should submit to this Department, for information and for record in the office of the Inspector General of Forests, copies of the final settlement orders under the Act for each reserved and protected forest, together with a statement of the boundaries laid down in the notification declaring the forest to be reserved or protected, as the case may be.

"2. When any forest has been gazetted under Section 34 of the Forest Act, before private rights had been enquired into, settled and recorded, and such rights have not since been enquired into, settled and recorded in the manner provided by Chapter II or Chapter IV of the Forest Act, this fact should be reported in each instance, and explanation be afforded of the reasons which have delayed the final settlement.

"3. The Forest Act provides that, until such enquiry, settlement, and record have been completed, the declaration made under Section 34 constituting any forest property a reserved or protected forest, shall not affect or abridge any existing rights, while on the other hand no new rights can be acquired, save under Sections 22 and 23. Under these circumstances delay in completion of the settlement, though it does not theoretically affect existing rights, will not only make the necessary enquiries increasingly intricate and difficult, but may cause eventual dissatisfaction through the non-recognition of claims which may have been allowed to pass unchallenged during a series of years. The Governor General in Council, therefore, trusts that pending settlements may be brought to completion as soon as practicable.

"4. In carrying out this work it would simplify matters greatly if Forest Settlement Officers noticed more carefully than has sometimes been the case, the fact that the Act only requires them to ascertain, settle and record actually existing rights, and does not contemplate their making provision for prospective or non-existent wants of communities or private persons. It is for the Executive Government to determine how its forest estates when duly constituted can best be worked in the interests of the community at large; and the Governor General in Council has full confidence that all Local Governments will so control and direct the management of the State forests by their Forest Officers as to make them subserve the reasonable requirements of the neighbouring population, so far as is consistent with the exigencies of sound forest conservancy.

"5. A closer adherence to the provisions of the Act would frequently save much embarrassment to the Forest Department, and would in no way interfere with the subsequent exercise of the discretion of the Executive Government in popularising, as far as may be possible, the management of its forests."

(G. I., H. D., No. 21-F., dated 31st August 1885; *vide* G. R. No. 8004, dated 2nd October 1885.)

4. The terms given in the following list embrace all the different kinds of fellings made in forests in India, and the Government of India have directed in their Circular No. 25-F., dated 13th August 1889, addressed to certain Local Governments and Administrations, that in future these terms and no others should be used (in returns, tabular statements

&c.,) when describing such operations. The circular was communicated to the Government of Bombay for information, and copies of it were forwarded by this Government to the Conservators for information :—

List of terms to be used in describing fellings.

Regeneration Fellings.

Fellings made with the view of replacing the existing crop of trees by a new crop. These are classified in accordance with the method of treatment as follows :—

(1) *Regular Fellings*, whereby it is sought to produce, by natural means from self-sown seedlings, a new crop regular in its constitution. Such fellings may be "preparatory," "secondary," &c., or "final," and all but the last may be either "close" or "open."

(2) *Selection Fellings*, which consist in the methodical removal of the exploitable trees in a forest, either singly or in groups, with a view to producing, by natural means from self-sown seedlings, a new crop irregular in its constitution.

(3) *Coppice Fellings*, of which the object is to produce a new crop composed of shoots and suckers from the stools and roots of the trees felled. Such fellings may either be "clean," in which case "simple coppice" is produced; or a certain number of trees may be reserved as "standards" over the coppice, in which case the resulting crop is called "coppice with standards."

(4) *Clean Fellings*, made with the view of restocking the area felled by planting or sowing it.

Amelioration Fellings.

Fellings made with the view of improving the condition of the existing crop. These include :—

(5) *Improvement Fellings*, which consist in the cutting out of ill-grown or injured trees, or trees of inferior species, with a view to their being replaced by sound coppice or by seedlings of a better kind, or in order that the blanks so caused may be planted up.

(6) *Thinnings*, which consist in the removal, from an immature crop, of stems of either the principal or accessory species in order to give the crop of the future more room for unconfined growth.

Unclassed Fellings.

(7) *Unclassed Fellings* include the unmethodical removal of trees by right-holders or grantees, or by purchasers, under permits or trade licenses.

(G. R. No. 6887, dated 13th September 1889.)

5. The local circumstances of the Konkan make it necessary that the unit of working area should be comparatively small, and that the annual fellings should be numerous and widely distributed. The importance of decentralising forest labour is obvious in a tract where the local demand for forest produce for domestic and agricultural purposes is exceptionally large, and where so large a proportion of the population depends mainly for its subsistence on the wages earned by felling, carrying and distributing such produce. Forest blocks as well as compartments must also be of small size, so that the open portions of forest available for grazing may be within convenient distance of the different forest villages. The success of the system now under trial for supplying the cultivators with loppings for ash manure from the annual coupes also clearly depends as much on the number and situation of the coupes as on the actual quantity of such material made available. Government recognizes the necessity of cutting compartments when due, and expects that the Revenue Officers will cordially co-operate in inducing the cultivators to utilise the ráb material obtainable from the fellings to the fullest possible extent consistent with the due protection of the coupes. The conservation of the young growth in the coupes is a matter of serious importance, and the measures adopted to secure the object in view should be specially noted in the Forest Administration Reports. (G. R. No. 1899, dated 13th March 1891.)

6. Conservators should adhere strictly to the working-plan rotation of "coupes." (G. R. No. 3609, dated 25th April 1892.)

7. All working plans should before final sanction be submitted to the Collector of the district concerned for careful scrutiny, it being essential that the Collectors should have full opportunity of judging of the effects of the proposed closures of forests and of suggesting such modifications in the plans as are imperatively necessary to meet the reasonable wants of the people. All working plans should be submitted for the approval of Government through the Collector and Commissioner concerned. (G. R. No. 5107, dated 20th June 1892.)

8. When working plans have been formally sanctioned by Government, the Collector of the district, subject in cases of dispute or doubt to the control of the Divisional Commissioner, is the officer responsible for their due observance. (G. R. No. 10056, dated 22nd December 1892.)

9. The Conservators and Deputy Conservators should act on the suggestion made in the following paragraph 12 of the Government of India's letter No. 1430-F., dated 14th November 1892, as regards the collection and record of information on the respective adaptability of different trees for coppice purposes :—

"12. The notes contained in the Conservators' reports on the subject of reproduction have been perused with considerable interest. The reproduction by coppice would seem to have been generally favourable. This result is important, as the working plans in the Bombay Presidency are to a great extent based on regeneration by this method of treatment. The Government of India recommend that accurate information should be collected as regards the relative adaptability for coppicing purposes of trees of different species and age, and that any reliable observations on the subject should be recorded in an easily accessible form, either as an appendix to the annual reports or in the pages of the 'Indian Forester.' The regeneration of forests by seed and more especially the afforestation of blanks or waste areas is a much slower process than coppicing, and it is not to be expected that considerable changes will take place from year to year."

(G. R. No. 10056, dated 22nd December 1892.)

10. Forests must be classified and the system of management and agency settled before working plans can be made out satisfactorily, except for such tracts as must certainly be included in forest proper. Every effort should, however, be made to push on demarcation on the ground in all forest of that description, so far as it is possible to do so with existing establishments. (G. R. No. 6375, dated 2nd September 1893.)

11. So long as local supply is not affected, and the wants of the villagers can be otherwise provided for, a matter regarding which the Collector is best able to judge, Government will not insist on the departmental felling of coupes for the produce of which there is no demand. It is most desirable, however, that, as far as possible, the coupes should be felled in regular rotation; otherwise the regularity and the orderliness of the rotation system is lost, and it is deprived of its main advantage when, owing to areas that should have been cut in previous years being left standing, the Conservator's forecast of the area to be cut, and, therefore, of the quantity of timber he has to put on the market, is upset. Where a coupe has not been felled in its proper year, every effort should be made to dispose of it in the following season. (G. R. No. 4944, dated 8th July 1893.)